

MAR 26 1926

CANADIAN HEALTH CONGRESS, TORONTO, MAY 3rd to 7th

The Public Health Journal

OFFICIAL ORGAN

Canadian Public Health Association

Vol. XVII

TORONTO, MARCH, 1926

No. 3

SPECIAL ARTICLES

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1926

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No. 3

Immunization Against Scarlet Fever*

By RUGGLES GEORGE, B.A., M.B., D.P.H.

The work here recorded was done on fifty-four inmates of the Boys' Home in Toronto. This institution has about 60 boys from five to fourteen years of age. The son of the author, although not at the time an inmate of the institution, was included in the group. The average age of the group was 9.81 years, and 37 of them were from eight to eleven years of age.

HISTORY OF SCARLET FEVER

A medical history is taken on each boy at the time of admission to the Home and added to as required. These histories showed a record of scarlet fever in five cases. Owing to the constituency from which these boys were drawn, the worth of the histories is doubtful in that some of the boys with no record of having had scarlet fever probably did have it before admission.

PROCEDURE

After a preliminary Dick test, four injections of scarlet fever toxin were given, followed by a final Dick test to gauge the result. Where the Dick test was negative or pseudo, no toxin was given, and several boys left the Home before the work was completed.

PRELIMINARY DICK TEST

On June 3rd, 1925, a Dick test was done on 53 boys with the following result:

| | |
|-------------------------------------|----|
| Strongly positive | 6 |
| Positive or slightly positive | 28 |
| Combined | 2 |
| Negative | 11 |
| Pseudo | 6 |
| | — |
| | 53 |

*From Research Division, Connaught Laboratories, and the Canadian Red Cross Society. Presented to the Academy of Medicine, Toronto, March 2, 1926.

The Dick readings on the five boys with a history of scarlet fever were:

| | |
|-------------------------|---|
| Positive | 1 |
| Slightly positive | 1 |
| Negative | 1 |
| Pseudo | 2 |
| | — |
| | 5 |

That is, three out of five with a history of scarlet fever gave readings indicating immunity.

TABLE I

| Dick Reading. | Under Average Age. | Over Average Age. |
|----------------------|--------------------|-------------------|
| Positive or Combined | 19 | 14 |
| Negative or Pseudo | 4 | 10 |

Table I shows the relation of the first Dick test to the age of the boys, those boys over the average age being placed in one group and the boys under the average age in another group. As might be expected, susceptibility is more common in the younger boys and immunity in the older boys.

FIRST DOSE OF TOXIN

The first dose of scarlet fever toxin was given on October 9, 1925, using a strength with an equivalent of 250 skin-test doses to 1.0 c.c. The two combined reactors to the Dick test were given a cautious dose of 25 and 50 skin-tests respectively, and no toxin was given to the 17 boys in whom a negative or pseudo Dick test indicated a prior immunity. The other 30 boys still in the Home were divided into two groups of fifteen each. A dose of 125 skin-tests was given to one group and of 250 skin-tests to the other group.

The following plan was used in classifying the reactions to this and subsequent doses of toxin:

“No reaction”—Site of injection neither red nor sore. No fever.

“Local Reaction”—Site either red or sore, or both. No fever.

“General Reaction”—Site either red or sore, or both. Temperature of more than 100.0 degrees and malaise.

It should be noted that the term “local reaction” is of more scientific interest than of practical importance. The local reaction does not bother the patient, and should be no deterrent to the use of toxin.

TABLE II
Reaction to First Dose of Toxin

| Skin-test Dose | Number | Reaction | | |
|-------------------|--------|----------|-------|---------|
| | | None | Local | General |
| 25 | 1 | 1 | — | — |
| 50 | 1 | 1 | — | — |
| 125 | 15 | 10 | 5 | — |
| 250 | 15 | 7 | 8 | — |
| — | — | — | — | — |
| 32 | 19 | 13 | — | — |

The reactions to the first dose of toxin are shown in Table II. This table shows more local reactions in the group given the larger dose of toxin. It will be noted that no one gave a general reaction, and neither of the combined reactors to the Dick test gave any reaction to the small initial dose of toxin.

Two boys with a history of scarlet fever and a positive Dick test were given toxin. One of them gave no reaction to 125 skin-tests, and the other gave a local reaction after 250 skin-test doses.

SECOND TOXIN

The second dose of toxin was given to 32 boys one week after the first dose. 18 boys received 750 skin-tests and 14 boys received 1,500 skin-tests, the larger second dose being given to those who had received the larger initial dose.

TABLE III
Reaction to Second Dose of Toxin

| Skin-test Dose | Number | Reaction | | |
|-------------------|--------|----------|-------|---------|
| | | None | Local | General |
| 750 | 18 | 9 | 9 | — |
| 1,500 | 14 | 5 | 8 | 1 |
| — | — | — | — | — |
| 32 | 14 | 17 | — | 1 |

The reactions to this second dose of toxin are shown in Table III. To this second dose of toxin one boy gave a general reaction. He had a temperature of 101.0 degrees F. with malaise.

THIRD TOXIN

The third dose of toxin was given to 30 boys nine days after the second dose. 17 boys received 1,750 skin-tests and 13 boys received 3,500 skin-tests, the larger dose being given to those boys whose previous doses had been larger.

TABLE IV

| | | Reaction to Third Dose of Toxin | | |
|-------------------|--------|---------------------------------|-------|---------------------|
| Skin-test Dose | Number | None | Local | Reaction General |
| 1,750 | 17 | 6 | 11 | — |
| 3,500 | 13 | 3 | 10 | — |
| — | — | — | — | — |
| 30 | 9 | 21 | — | — |

The reactions to this third dose of toxin are shown in Table IV. The absence of general reactions will be noticed.

FOURTH TOXIN

The fourth dose of toxin was given to 30 boys six days after the third dose. 17 boys received 2,250 skin-test doses and 13 boys received 4,500 skin-test doses, the larger dose being given to those boys who had received the larger previous doses.

The reactions to this fourth dose of toxin are shown in Table V, which again shows the absence of any general reactions.

TABLE V
Reaction to Fourth Dose of Toxin

| Skin-test Dose | Number | None | Local | Reaction General |
|-------------------|--------|------|-------|---------------------|
| 2,250 | 17 | 7 | 10 | — |
| 4,500 | 13 | 4 | 9 | — |
| — | — | — | — | — |
| 30 | 11 | 19 | — | — |

An endeavour was made to correlate the reaction to the preliminary Dick test with the subsequent reactions to toxin, but no relation could be found between the severity of the preliminary Dick test and the reactions which followed the use of toxin. Again it should be emphasized that the reactions were, with one solitary exception, of the "local" type, and without practical significance so far as any deterrent to the use of toxin is concerned.

A comparative table was prepared to show the relation of the severity of the reaction to the first dose of toxin to the most severe of the reactions to either the second, third or fourth doses. No relationship was found, and there was nothing to indicate that the reaction to the first dose of toxin gave any forecast of the reactions to subsequent doses.

AGE GROUPING OF THE NON-REACTORS

There is nothing significant in the age grouping of the three boys who showed no reaction to any of the four doses of toxin. Two of

these boys were eleven years of age and one was five. All three of them were in the small-dose group, receiving a maximum of 2,250 skin-tests.

SUBSEQUENT TESTS

The Dick test was repeated two weeks after the last dose of toxin. All of the 28 boys re-tested gave a negative reading, and were therefore considered as immunized by the toxin.

On January 21, 1926, three months after the last dose of toxin, a re-test was done on 25 boys who had received toxin and were still in the Home. Each of these boys was given a Dick test and also an intradermal injection of 1-500 toxin equal to three skin-test doses. The results of this re-test were as follows:—

| | |
|--|----|
| Negative to both tests | 21 |
| Negative to Dick test and positive to 1-500 toxin | 2 |
| Positive to Dick and positive to 1-500 toxin | 2 |
| | — |
| | 25 |

Of the 4 boys who gave a reaction to 1-500 toxin, 3 were in the group whose maximum immunizing dose of toxin was 2,250 skin-test doses and 1 in the group receiving a maximum of 4,500 skin-test doses.

This re-test indicates that nearly all the boys seem to have held their immunity for at least three months, and that the group receiving the larger dose of toxin retained immunity better.

Venereal Diseases

J. EWART CAMPBELL, M.D., C.M.

Apparently no nation has evolved a really humorous deity, probably because the tribulations of mankind are only amusing to those who might be similarly afflicted; and humour in a god, in a being who is immune from the discomforts of life, would be so utterly cruel that the saving grace is rather the attribute of imps and devils, beings more like ourselves. We might conceive of a kindly, pitying humour, if such a thing exists, and invoke the particular deity who presides to be with us at this stage of the world's history to save us from ourselves.

Mankind in his development has acquired some things which render possible his sojourn on this earth for a longer period than his remote ancestors. No doubt the comfort of the bulk of mankind has been materially improved throughout the centuries in which he has inherited the earth; but he has also acquired some disabilities. One of his particular acquisitions is venereal disease, the origin of which is veiled in antiquity, though it is the conventional opinion of the medical profession that one of them is relatively recent, at least as regards white men. These diseases are very definite evils, but they have been with us for many generations; and in spite of that fact the population of this planet has increased, and it is very doubtful if these afflictions are any more widespread to-day than they were one or two hundred years ago. So it is not improbable that the race will survive all the ravages of venereal disease, even with the assistance of modern diagnosis and treatment; but the tragedy of these disabilities concerns individuals.

There may have been a change in our standards or a lack of faith in the adage that virtue is its own reward, or that it triumphs in the end, which is an obvious result of the materialism of the present age, or rather the age just past, an age which accepted opulence or comfort as a proof of virtue; for humanity has awakened to the necessity of recognizing the existence of venereal disease. It is possible that the war, with the expatriation of many men, raised the fear that these men might become infected and bring back the disease and pollute the purity of their native land. It is, however, more than probable that the unpleasant fact that a great number of men had to be kept and treated, made people realize the economics of the question, and that to get rid of venereal disease would be a paying proposition. The suppression of venereal disease therefore became, if not fashionable, at least fashion-

able enough for political purposes and to secure the expenditure of a fair amount of money to attempt to control the vice. This propaganda has attracted a number of votaries, and has produced a great deal of literature adapted to various ages and sexes, and no doubt has done appreciable good.

The puritan spirit of our race enjoys suppressing, and the less we know about a thing the more definite are our ideas on the proper way to suppress it. After all, the afflicted are offered treatment, and a number of others are told that these diseases actually exist, which is certainly something concrete. Unfortunately it does not get rid of the disease.

Curing a disease never, it is said, eradicated it; but with the exception of diphtheria no disease ever has been cured by any of man's remedies, so that statement is of little value. The only great successes in minimizing the occurrence of a disease have been by prevention, as witness smallpox, and more recently typhoid fever. The methods used in controlling these diseases are hardly applicable to venereal disease except in theory, for a general scheme of vaccination against syphilis and gonorrhoea, while quite within the bounds of possibility, is hardly likely to be very fashionable. Metschnikoff and his associates of the Pasteur Institute devised a method of prophylaxis for the prevention of syphilis, and a similar method is in vogue for the prevention of gonorrhoea, which credits an individual with such cold blooded foresight that for practical purposes it is useless. Some, however, who are in charge of the health of soldiers and sailors give it their commendation; but those who have to deal with the less disciplined masses are more sceptical. Many think the punishment fits the crime, but unfortunately the infection does not always stop with the sinner; and mankind to-day is not satisfied to leave everything to Nature as a dispenser of absolute justice. It is very doubtful if Nature is likely to be more leniently disposed towards animals who can think and thus work out their own salvation than to the rest of animal creation who must conform or perish.

Immorality as a term usually means some irregular, or rather illicit, sexual relation, something, in fact, which is not a crime, but an offence against the ideals of society. An offence against the customs it is not, as this custom of immorality is definite and widespread, and generally regarded as a sin of no great moment. However, it is a part of the code of most religious prohibitions and its converse chastity has been, and often is, exalted as a particularly spiritual state. Even now the literature which is issued for the prevention of venereal disease preaches chastity as quite a normal condition, or rather insists that it is not

abnormal, and enjoins men, not to temperance, but to total abstinence. Marriage and the results of marriage is quite a different thing, for that begets children, an acquisition, whatever the quality, to all properly conducted states. The fact, however, remains that all the religious teaching of many generations, and that during years or ages when religion was a very living thing, and the terrors of Hell and the rewards of Heaven were believed by the great bulk of mankind, has not been able to eradicate the human being's propensity to satisfy his carnal appetite except when sanctioned by law. As we live in a more material age, spiritual admonitions have given place to objective realities or awful pictures of the last stages of venereal disease. So the fear of Hell is still with us, and sometimes it has a definite reality; but as there is no just or equitable retribution, and as man is taking chances every day of his life, a few risks more or less do not matter, to some people at least. There are some, perhaps the majority of men, who under certain circumstances, provided swift and sudden execution were the result of their crime, would choose the crime. After all, Nature furnishes an example of this sudden justice, for the male bee falls to earth an eviscerated corpse after his nuptial flight, and the spider eats her mate.

Obviously, teaching the dangers and results to the sinner and his possible victims will restrain many men who have a feeling of responsibility, and some expectation of matrimony with domestic felicity and children in the not too distant future; but not all are gifted with this prudence, if prudence it can be called. The most prudent in search of the material benefits of our civilization do not marry young, and it is extremely doubtful if that vigour of mind is not associated with a vigour of the body, which may render them foresighted and predatory, but certainly does not make them celibates.

That a knowledge of the dangers is not a deterrent is proved from the habits of medical students, who are certainly not more virtuous than other young men of a similar age, probably less, and not more readily cured than any other human being, although members of the medical profession.

Civilization undoubtedly means restraint, but an appetite which is responsible for the continuance of society is quite a natural appetite; and although it is hypothetically possible that evolutionary changes over the course of many generations might eradicate it for certain periods of the year, the fact remains that it has not been eradicated and not very adequately controlled. Such being the case, there is not much expectation for the prevention of venereal disease by any immediate abstinence from immorality.

Who are the sinners? Most men and a large number of women, but

especially the young, because there are more of them and fewer are married; so that it is youth that must be controlled. It is said that the Arab or Muhammadan regards a man who has reached maturity and is not married as an anomaly, something mentally or physically pathological; and possibly they are right. But we are dealing with an industrial civilization of the twentieth century; and while the Arab may have several wives, it is an economic impossibility for us. Even one is a luxury which many men cannot afford; nor is there any immediate prospect that economic conditions will quickly change so that men will be able to marry when they are young.

Polygamy and polyandry depend on the economic state of society; where the earth yields a living easily, there a man has many wives; where the reverse obtains, one woman is supported by several or many men. Perfectly identical conditions prevail in our highly organized society, for the wealthy are not usually satisfied with a strict monogamy; and the man who cannot afford to marry is but one of the many husbands of the prostitute.

As prostitutes are responsible for distributing venereal diseases to men, attempts have been made to segregate that particular class or profession and to keep them clean by inspection and medical examination; but it has not been very effective in controlling these affections. It is said that a regularized profession acts as a centre or lure, and attracts the irregular practitioners, so that opportunities for infection are materially increased. Such is possible, for the same rule apparently obtains in other walks of life or in businesses and trades; but one suspects that there is a puritan spirit lurking in the background, and that those people who are so insistent on the evils of segregation are condemnatory because that is what they wish to believe. Undoubtedly it is difficult or impossible to control the casual or clandestine prostitute unless such repressive measures were instituted as would make our liberty insecure and our daily life intolerable.

Harlots have been thoroughly investigated, no doubt with a certain amount of satisfaction to the investigator and amusement to the harlot; but it is quite likely that the results obtained are fairly accurate, and that women become harlots for many reasons, including strictly economic ones at one end of the scale and pure amusement, or better, irresponsibility at the other. There is certainly a tendency in this country and the United States to look upon women, officially at least, as victims, and to talk of white slaves and girls lured from home. White slavery, with very few exceptions, is largely a figment of the imagination and the refuge of the sentimental, or an excuse of the parents of what has been the deliberate choice of their daughter, and consequently a denial

of the effectiveness of their training. Young women as well as men are certainly animated or driven by that force of nature over which they have very little control to seek mates; and even the most highly disciplined are not averse to copying the allurements in dress which have been found satisfactorily powerful by their less responsible or more predatory sisters. To obtain security, or at least relative security, social importance and motherhood, women must obviously secure a male to provide for them, and their whole education is directed to fitting them to present the qualities which are regarded as the most impressive according to the conventions of the day. These conventions in the white races have in comparatively recent years changed from tight waist and enhanced bust to the short skirt and obvious legs; but those who think that one fashion is modest and the other the reverse have far to seek, and do not understand the function of the female of the species.

While it may be a matter of interest to know why women become harlots, the fact remains that harlots do exist, and have existed from time immemorial, so much so that it is often called the oldest profession. Apparently a demand creates the supply, though in our highly commercialized life an argument in favour of white slavery is that, like other businesses, an attempt is made to organize the trade and force the sale of commodities. However, as prostitution does exist, and as it is the source of venereal disease, it requires consideration.

Now venereal disease occurs in all walks of society, and may be evenly distributed among men; or it is possible that the percentage of men infected among the more opulent classes is not essentially different from that of the working classes. Such is not improbable, and one would say it was a fact from the statistics published in Germany before the War; but it is extremely difficult to be absolutely sure, and no statistics from venereal clinics are of any value, for such clinics deal very largely with one class; and as the labouring class is so much larger than any other class, there will naturally be a very much larger number of individuals infected. With women the case is different, for to a very large extent the prostitute is recruited from the class which has the minimum of amusement and the least expectations. Casual or clandestine prostitutes, or better, possibly, enthusiastic amateurs, exist even in the higher circles or on their borders, and do quite frequently form centres of infection. This is a class which might be affected by education, at least in the dangers of the diseases and the possibility of prevention, for they are intelligent enough to be receptive, and have the facilities and means to care for themselves. The amateur often marries, but so does the prostitute; in fact, the prodigal daughters of society are probably equally as fortunate as the sons. It is in the lower strata of society

that the clandestine prostitute is most dangerous, for which economic conditions are largely responsible; for the livelihood is meagre and precarious; there is lack of education, and really little reason for responsibility, and the money or means do not exist for the ordinary cleanliness of the body. Regular prostitutes who have a fixed abode, whatever may be said to the contrary, must be clean or relatively free from disease, for otherwise they would lose their clientele. It is not improbable that they may have suffered from disease during the earlier part of their career, but have become experienced, and now realize the market value of cleanliness. The clandestine prostitute is a free lance, probably carries on some other occupation at the same time, and is generally cheaper, or even willing to oblige for the sake of amusement or for amusement received. As a rule of a rough order, it may be said that the higher the price the less opportunity there is of contracting venereal disease. With women it may be presumed that where there is protection from adequate wealth, with its accompanying comfort and amusement, there is small chance of any of their number becoming prostitutes or *filles de joie*.

Venereal disease differs fundamentally from other diseases, because in the great majority of cases the victim is in the position that he or she could have avoided the infection by a definite exercise of will, in theory at least. Pains, penalties or moral suasion, possibly deferring the penalties to a future state in an older moral code, but rendered more courageous and reasonable to a critical generation by bringing the punishment nearer, and a decent respect for the unnecessary misfortune which may be inflicted on absolutely innocent persons, are the only means education has at its disposal to counteract the powerful impulse of nature for the preservation of the race. It is not to be expected that however potent the instruction it will emasculate the race, though no doubt it will enlighten a few and prevent them taking chances. Responsibility towards one's neighbour is the keynote of this morality, and it is hardly to be in evidence in sexual matters when it is not part of the business code of our civilization.

As a means of supplementing or strengthening the moral force of individuals, vigorous games or amusements are suggested, following the advice of the old Greek physician who recommended hard mental and physical exercise as an incentive to continence. Such may be so while the games or the creative effort lasts, but it is highly probable that a particularly vigorous individual is also very vigorous sexually. Unfortunately games and amusements cost money, and the pool room, and a vicarious support of baseball and football is the most vigorous exercise that is possible or acceptable to many people.

Undoubtedly the great bulk of mankind is bored, desperately often;

the young probably don't know it, and call it restlessness, and seek relief from themselves in gregariousness. The doctrine of the home and family is supposed to be the basis of modern civilization, and the fiction is preserved that, however humble it may be, there is no place like it. Satirical persons say, thank God! Often they are right, for to the young person it is a place of restraint usually, and occupied by unpleasant duties and little amusement. Many young men and women inhabit these dismal homes, and there are thousands of them. One would imagine that if we were a race of reasonable beings there would be little incentive to marriage and its inevitable consequences. Many of the young people working in our cities, of course, have no homes at all and live in rooms. They have to get their own amusements and friends, and even their husbands and wives, by their own instincts. Most of the institutions for young men and women are run on celibate principles, and appeal rather to the docile than to the vigorous. Anybody can get amusement who has money, but for those who have little or none the prospects are bleak. A young man desperately lonely picks up a girl of the streets and has some human companionship and exaltation; a young woman inadequately paid gets attention and amusement, and pays for it gladly. Who can blame them? It is one resource of our society, for young people are not philosophers, nor have they found salvation from the ennui of life. These people constitute the bulk of mankind. It thus becomes an economic problem; and it is doubtful, however philanthropic private individuals might be, or however paternal any government in establishing institutions and making playing fields, whether they would be sufficiently patronized by people who work all day to make them of any value. It is worth while trying all the same.

Cleanliness, or rather the lack of it, is largely responsible for venereal disease. It is true that many people who get it are regarded as clean; still one of the contracting parties is an offender. Now cleanliness is not next to godliness, but for the preservation of the race vastly more important. Soap is said to be cheap, which is not literally true; but facilities for bathing are not always available for those of slender means, and the tradition still survives that one bath a week is quite enough for those who are not nurtured in luxury. Spartan habits are not always virtues, but are often virtues of necessity; and because it is often impossible for many people to indulge in luxuries, so it is satisfying to their self respect or self righteousness to belittle or stigmatize something they cannot enjoy as effeminate. Even with the modern bath, hot water is only available at certain times, and not always plentiful, and cold water is not very cleansing nor comfortable. Such being the case, one might say that any city of any pretensions which cannot supply baths and hot water baths at any time of the day or night at a minimum

cost or absolutely free is certainly disregarding a very important factor for maintaining the health of the community. This is a very definite opportunity for paternalism or philanthropy. But cleanliness is not a matter of baths alone; it is also a matter of clothes, and clothes are expensive, even underclothing, which are most important. Again, there is the washing of these articles, and this probably exemplifies as much as anything the economic aspect of health; for people earning nothing at all, or just enough to keep themselves or their families alive, cannot supply themselves with an elaborate trousseau which can be frequently changed and washed. Education may do a good deal with the younger generation; but they will have to compromise with their means, or, having attained a higher standard of living, will naturally demand increased wages, which everybody who employs labour will regard as a distinct imposition. So a large part of the responsibility for the existence of foci of disease rests on the rich or reactionaries of society.

Alcoholism is said to be largely responsible for venereal disease, and undoubtedly many young men, and men not so young, acquire their affliction while drunk. But a man who gets drunk once, or possibly occasionally, is not an alcoholic. Many men plead drunkenness as an excuse; with others it is frankly deliberate; while with most it is probably a part of the general attempt at exhilaration. The alcoholic is depressed sexually, while the man who is credited with anything but crucifying the flesh does not drink at all. Even Muhammad realized that, when he forbade the Faithful wine and enjoined polygamy for the greater glory of the Lord. It is always comforting for those who are particularly distressed by their neighbour's shortcomings or pleasures to seize on one aspect of a question and expect to do away with all sin by prohibiting the particular vice which enrages them. Life is unfortunately not so simple, and the disease and disabilities which afflict human beings are probably as complicated as life itself. It is more than probable that if all spirituous liquors could be absolutely prohibited, venereal disease would be utterly unaffected, except in so far as an event of that order might affect the economic life of the community, for better or for worse.

The only direct means we have of combating these diseases in the form of prevention and early treatment render the pains of Hell, or rather the horrible results in this life, less terrible, and deprive the moralist of a suitable Nemesis; in fact, they render illicit relations less dangerous and so increase "immorality." Which is very doubtful, because, apart from vaccine, like that for smallpox, there is little hope of eradicating these diseases by treatment; and if the moralist would take more pains to make the individual's sojourn on this earth more pleasant and secure, he would not need to worry about godliness, provided he saw a sure and certain hope of cleanliness.

The New Haven Demonstration of Community Control of Rickets*

By MARTHA M. ELIOT, M.D.,

Children's Bureau, Washington, D.C.

During the last few years it has been shown that sunlight and cod liver oil are both important factors in the cure and prevention of rickets, the commonest chronic disease of childhood. Much has been learned during the last decade about the etiology of this disease and the changes which it brings about in the growing bones of animals and infants. We now know that if a child develops rickets, he can be cured either by exposure to the direct rays of the sun, by artificial ultra-violet light or by the administration of cod liver oil. The New Haven Demonstration was undertaken to show that rickets could be controlled in a community and the deformities prevented by the use of these same simple measures during the months when the infant tends to develop the disease.

The very great incidence and the severity of rickets in our temperate climate and the dangers of the disease in infancy and early childhood are gradually becoming known. Schmorl showed in Germany that 96 per cent. of children at autopsy had suffered from rickets to a greater or lesser degree. In this country Hess has shown that 90 per cent. of a group of children in a New York Orphan Asylum showed rickets. In the New Haven Rickets' study approximately 96 per cent. of children who had taken no cod liver oil have shown rickets. Of this last group 18 per cent. showed moderate or marked rickets at 10 months of age, 25 per cent. showed moderate or marked rickets at 13 months, and 37 per cent. showed moderate or marked rickets at 25 months of age. Thus, it will be seen that approximately one-third of the children examined in New Haven have shown moderate or marked rickets by the time they are two years of age.

RICKETS INCREASES SUSCEPTIBILITY TO RESPIRATORY INFECTIONS.

Susceptibility to upper respiratory infections, such as colds, bronchitis and pneumonia, is greatly increased in infancy and early childhood by rickets. Tetany, a condition of increased irritability of the nervous system, is associated with rickets and frequently results in convulsions.

*Read at Fifth Annual Conference of Health Officers and Public Health Nurses, Lansing, Michigan, November 18, 19 and 20, 1925.

Reprinted from the Michigan Public Health Bulletin, February, 1926

Tetany is, indeed, the commonest cause of convulsions in infancy. The deformities which are the results of rickets are well known. Bowed-legs, marked knocked knees, curvature of the spine, deformities of the chest, such as pigeon breast, deformities of the pelvic bones, are all conditions which are so frequent that they are sometimes taken too much for granted. Whether or not these deformities are very marked depends upon whether rickets has been of a severe degree or not. In adult women the commonest cause of difficult labour or operative procedures in childbirth is the deformity of the pelvis following rickets in childhood.

In October, 1923, the New Haven demonstration was started by the United States Children's Bureau in co-operation with the Pediatric Department of Yale University School of Medicine. The demonstration was planned on a community basis in order that a whole population might be studied. It would not have been possible without the co-operation of the Department of Health of New Haven, the Visiting Nurse Association, the Medical Association and the local physicians.

PROCEDURE OF DEMONSTRATION

The birth certificate of each infant born in the district is sent to the headquarters of the demonstration and delivered to the mother by one of the nurses. An appointment is then made with the mother to bring the baby to the Children's Bureau office as soon as she is able. The baby is given a complete physical examination and an X-ray photograph taken of the bones of both wrists. Repeat examinations, both physical and X-ray, are made each month if possible.

Directions are given to the mother with regard to the administration of cod liver oil and sunbaths while she is still at the office. The value of an actual demonstration of the best method of administering cod liver oil and of giving the sunbaths to the baby cannot be over-emphasized. With the baby lying across her lap, the nurse pours out the proper dose in a spoon held in her right hand. With her left hand she opens the baby's mouth by pressing the cheeks together between her thumb and fingers. The oil may then be poured little by little into the baby's mouth. If the mouth is not held open until the oil entirely disappears, the baby will spit out what is left. Throughout the winter cod liver oil should be given in doses ranging from one-half teaspoon twice a day at one month of age to one teaspoon three times a day by the end of the fourth month of age. If the child develops evidences of rickets, four teaspoons of cod liver oil may be given daily. Cod liver oil should be begun by the end of the first month of life and continued for at least two years. Cod liver oil may be given throughout the summer and has not been shown to upset the digestion of the baby.

The demonstration of the sunbath is usually given at the home. The mother is shown how to gradually increase the amount of skin exposed to the direct rays of the sun, starting with the face and hands and gradually including the arms, legs and whole body. The first exposure may be for five or ten minutes. The length of the sunbath should be increased three to five minutes daily until the child is exposed for an hour once or twice a day. Outdoor sunbaths may be begun in the early spring and should be continued throughout the summer, late into the fall. If the sunbaths are begun during March the baby should be well tanned on the face, arms and legs by the end of April, and by June their bodies should be tanned. During July and August children should be protected from the hot sun in the middle of the day, but should be given sunbaths before 10 a.m. or after 3 p.m. From November to March it is difficult in the northern parts of the country to give extensive outdoor sunbaths, but the mother must be taught to place the baby outdoors in such a day that all the morning sun available will shine directly on the baby's face and hands. During these months sunbaths may be given indoors with the child placed beside an open sunny window. The child must lie in the patch of sunlight which has come through the open window.

COD LIVER OIL AND SUNSHINE CONTROL RICKETS

The New Haven study has shown that if cod liver oil and sunbaths are given regularly from earliest infancy rickets can be controlled. Even larger doses of cod liver oil and longer exposure to the sun than are here recommended will be necessary if rickets is to be absolutely prevented, for in New Haven 90 per cent. of these young babies showed the evidences of slight rickets by X-ray before they were six months of age. When the directions regarding cod liver oil and sunbaths were followed regularly these babies did not develop more than the slightest evidence of rickets, that is, the disease was controlled. In contrast to this group stand the control series which showed 18 per cent. of moderate or marked rickets at 10 months, 25 per cent. at 13 months, and 37 per cent. at 25 months of age. In the temperate zone rickets is a nearly universal disease among infants, whether breast fed or artificially fed. If prevention is to be brought about antirachitic treatment should be begun in the first month of life and continued faithfully throughout two years.

Hieronymus Fracastorius de Contagionibus, Morbisque Contagiosis et Eorum Curatione, Libri Tres

Second Paper

By THE HONOURABLE WILLIAM RENWICK RIDDELL, LL.D., D.C.L., etc.,
President, Canadian Social Hygiene Council.

(Continued from last month)

If it is thought proper to make a decoction in wine you should first consider well the temperament, and look carefully to the habit (36) (of body), the age too and the time of the year. It may be decocted in sublimated Aqua Endiviae and Cichoreae and Lupulorum and Boraginis and the like, which we have sometimes found most helpful. This is the method to pursue when the treatment is by Guaiacum.

If, however, you have not Guaiacum, use either the above written Juniper, Citrus, Cupressus, or Teda and Terebinthus and Ebenum or Calamus aromaticus with Gentian root.

Now let us come to those who treat by perspiration, and there are many ways. Some treat with those Sublimates which are called Elixir, all most penetrating and fiery, dangerous, too, and to be avoided; others treat with what are called sudorifics *simpliciter* with which they mix Aromatics—in that way they resist putrefaction, liquefy the materia and turn it into sweat. The root of Cynae has been found most advantageous—this, as they say, is brought from China by merchants who sail to Calicut and Ceylon and beyond; it is used by the natives for many diseases, and particularly for the Morbus Gallicus. It produces more perspiration than could be believed, and it dries; and so it is not to be wondered at that it is valuable in this disease.

The method of using it is this: The roots are cut across into thin round chips (37), and one ounce of them is put with 12 lbs. of water in an earthen pot of 16 lbs. capacity and boiled over a slow fire until a third part is boiled away; of this decoction, one pound is to be drunk in the morning, the rest kept to be taken in the place of wine—this decoction is to be made every day. The patient should stay two or three hours in bed and perspire, later rise if he wishes, but not be exposed to the open air until after seven days. There should be given for complete treatment about twenty-five days, so that the whole

treatment needs 25 oz. (38). In the meantime all acid food and that hard to digest are to be avoided.

If you have not this root, you may in its place use the root of our own Canna, to which add Calamus and Mastich—you may also boil the root of Personacia, which is an admirable sudorific, or you may usefully employ Xiris and Aconite and Calamus aromaticus and Schinanthus—these may be used for many days. Another decoction may be made which fulfils all intentions (39). Of the roots of Gentian, Bulalapathus or Bistorta, Costus, Aristolochia, Iris, Cassia wood, Scordium, Dictamnus Creticus *quod sufficit*, the proper quantity of each put in and decoct as above. These then are the remedies you may employ after purgation made, and the disease not abating, they are milder and much safer.

Now let us take up the harsher medicines which were in immediate use in the earliest times, being originally the discovery of the Empirics (40)—one of these was inunction, the other suffitus. These, although they may have been discovered by the Empirics, and that from the similarity to Scabies (as we have said), have nevertheless a fitting rationale (41)—for they are made from the substances which burn out the “seminaria,” dry the whole materia, absterge it, liquefy it and turn it into perspiration; their effective component is from Caustics or near-Caustics (42), to which the most suitable ingredients are added.

What are used for inunction are certain other powerful Caustics—not such as Chalcanthus and what is called Arsenic and Sublimate, but such as Mercury, which may be called the substance of this medicament. There is, however, a Caustic powder which consists in the exceedingly minute and fiery particles which the Sublimate exhibits. Where, then, these particles are brought into action within the body, either because they are by nature adapted to heat up and are at the same time united, separate from others, or because all the ultimate particles of Mercury are adapted in the highest degree to derive heat from our own heat, and by reason of the density of the materia soon burn out, then exsiccation and exusion take place about the seminaria (43). So there are added medicines which carry inward the virtues of the Caustics, and at the same time mollify the materia, by which means it becomes easier to liquefy, like fat there are also added medicines which subtilize and absterge and liquefy—and last of all medicines which resist contagion of all kinds.

Such is the prescription I have often used: Of Pork Fat $\frac{1}{2}$ lb.; Fresh Butter 3 oz.; Turpentine, and liquid Styrax, each 2 oz.; Frankincense, Myrrh, and Mastic, each $\frac{1}{2}$ oz.; Iris, Aristolochia and Gentian, each, 3 dr.; Hellebore 2 dr.; Sulphur $\frac{1}{2}$ oz.; Nitre 1 dr.; Juice of Elecampane and Juice of Opium, each, 1 oz.; Oil of Laurel, rosated,

q.s., Vinegar 1 oz.; Mercury one eighth of the whole weight; mix and make an unguent in an iron mortar (44).

Milder compounds may be made and differently constituted for different intentions and diverse cases. For example, it is to be observed that where there appears more of gummosities, more fat is to be put in the unguent, where there is less of gummosities and more of pustules and ulcers, more of the powders is to be put in; in the more delicate, less Mercury is to be put in, and where the temperament is the warmer those medicines are to be put in, which temper, such as more Butter and more Rosated oil and less of the drying medicaments.

Before inunction, however, the most perfect purgation must be effected, and even bleeding, if it be thought proper; the patient is to be put in a warm place and anointed over the whole body except the head, chest and under the arms (43), then the body is to be bandaged with much warm tow. There are some who put little sacks of hot barley between the thighs, in the axilla and under the feet; in this way the unguent penetrates more and the perspiration is bettered. Some anoint twice a day, which is too severe; one inunction will suffice. Some anoint immediately after dinner, which, even if it seems effective to bring out the perspiration, is deleterious to digestion as a whole, and so it is better to anoint five hours before dinner, at which time nothing prevents giving white wine—I have allowed even white wine without water.

Ten days may be given to the inunction treatment.

If the mouth begins to ulcerate and much salivation ensue, this is not to be checked, but encouraged, until the mouth is seen to be badly affected; then wash with milk or barley water and mulberry-honey or rosated honey. Later off, when it is sought to cure these ulcers (44), wash the mouth with styptics and alum and gargarisms.

It is, now, to be told what advantages flow from this treatment and what disadvantages. The advantages are that the pains are wonderfully relieved, the gummosities dissolved, either in the inunction treatment itself or later, the ulcers are healed and all the pustules recede. It is not, however, without its annoyances and evils, of which the first is the filth of the inunction itself, but more serious is the fact that the mouth and palate are exulcerated, and so much foul matter is extruded through the mouth for fifteen days or more that nothing can be more filthy, nothing more intolerable—no food can be masticated, and it is with difficulty that liquids can be taken; the teeth are loosened, sleep rendered impossible, and, in short, during that time no affliction can be more grievous (45). Moreover, in many cases, after the disease is cured, tremors remain, and in many cases the disease returns (46).

These same Empirics invented Suffitus (fumigation); they put the patient on a pot, cover him round closely with rugs so that even the head does not extrude, then they burn Cinnabar mixed with Thus, by which fumigation they heat the patient wonderfully and he perspires freely.

This is certainly a very severe treatment, and I have never ventured to apply it to the whole body, but only to certain parts, as the thighs and arms, when either there are sphaceli or malignant gummosities or pains or obstinate ulcers. In such cases I think it most advantageous; but I would advise that it be not used in other cases; and credence is not to be given to the Empirics, for whom nothing is too daring, so that they have even ventured to administer Mercury by the mouth with what they call Precipitate (48), exhibiting pills made out of these just as though there were the same virtues in Mercury applied externally and swallowed. They also make use of Cinnabar, because Mercury is the active principle in it.

Perhaps someone will ask whether baths are good in this disease, such as the Aponensian and Porretanian, and also our own [the Veronese], for they are efficient to dry and absterge and subtilize and induce perspiration—as to that, however, we must say that experience has shown them of little or no value (50).

I myself think the reason to be that they are too weak to be able to liquefy materia so crass and so viscid; certain less serious affections of the skin, such as Scabies and Impetigo, and those which come from hepatic, adustion and salty phlegm, even our own Calderian baths can effectively cure; but the more severe, they cannot—for the same reason of the powders which are advised above against contagions, the frigid ones, like Armenian Bole and Sphragis and Gemmae, have no effect in this disease, but only those which are hot, like Thus and Dictamnus and others, in whatever way administered.

There are, moreover, certain concomitants in this disease which it is sometimes necessary to treat specially—amongst which is headache, sometimes in the whole head, sometimes only a part, the materia being much distended and pressing on what is called the Pericranium—these, as a rule, do not yield to any remedy. I have found no treatment more useful than inunction, with the following liniment, of the inner surface of the arms, and particular where the Venae Cephalicae (51) are prominent.

Take Juice of Elecampane, Bryony, Liquid Styrax, Turpentine, of each one ounce; of Gum Elemi half an ounce; Bear fat, Goose fat and Butter, each an ounce and a half; of Thus and Iris, each three drachms; Iris Oil, q.s.; of Mercury an eighth part of the whole weight (52).

There are sometimes, again, gummosities so hard that they do not yield to the Guaiacum froth or the usual liniments—and then (53) the patients are tortured by so great pain through the whole length of the leg that death itself is preferable—for that reason recourse should be had to the most powerful medicines. Some exhibit the suffitus above spoken of, others sprinkle heated and glowing Pyrites stone with a decoction of Guaiacum and Vinegar and apply to the place as a fomentation. The following plaster is also useful:

Take of the roots of Field Cucumber (Elaterium) and Iris each a sufficient quantity, heat until they are tender—then take a pound of them, two ounces of each of Ammoniacum, Serapinum and Galbanum, an ounce and a half of Liquid Styrax, an ounce of each of Bear Fat and Butter, of Mercury a fourth part of the whole weight—mix and make a plaster in the usual way of the profession (54).

Sometimes the fauces and the throat are eroded by malignant ulcers; and, if these are not checked, often the uvula (55) is eaten away, and often the corruption even attacks the bones. In such cases, having effected the purgations, and as perfect as possible, you should exhibit gargarisms, made of Ligustrum and Plantago and Cytinae, in which are then dissolved Alum and Vinegar-dregs and Nitre with Armenian Bole.

Then if these fail, you should touch the place with Cotton (56) dipped in water of Verdigris—a water made of Sandaraca (Realgar) and Alum is also marvellous for this—a Theriaca is distilled in Brandy and Vinegar by means of an Alembic. A very limpid liquid comes out with many virtues, being especially effective where it is necessary to conduct the force of the medicine more deeply. If, then, you dissolve Armenian Bole or Sphragis in it, and touch with it the eroded parts, you will both eradicate the seminaria of this contagion and heal the whole erosion.

In some cases, too, the hair falls, either that of the beard or the eyebrows, or even of the head, which disfigures and makes men objects of ridicule. In such cases, prescribe a continued course of pills of the Hiera Diacolocynthidos kind after meals; also decoct Guaiacum with Honey and Laudanum in wine and foment the place with the decoction hot.

And the following odorous preparation is effective—which has of what is called Pomata two ounces, of Laudanum half an ounce, of Musk three grains, of Aqua rosata (in which is boiled six grains of Sublimate) one ounce. Mix all together and thoroughly incorporate, then bathe with it.

The Aqua before described distilled from Theriaca is also effective.

Sometimes it happens that small children (57) who suffer from this disease, contracted from mother or nurse, cannot be subjected to the treatment already described; in these cases I am accustomed to make a decoction of Guaiacum in the manner we have shown above, and then I direct this decoction to be distilled into perfectly pure water, and I give the child to drink every day three or four ounces—it is not unpalatable to drink, and is of no little effect.

The above, then, are my views on Syphilis, or *Morbus Gallicus*, to which one, by careful consideration, may add many and varied compounds and seek out diverse remedies, having regard to age and sex and temperament and *materia*, etc., and administer different remedies in differing cases.

(36) "temperaturam," "habitudo." For "temperatura" which is the same as "complexio" or *temperamentum* see Note 10 *ante*. "habitudo" is our "habit of body."

(37) "Assulae"—"assula" (or "astula") is a chip, splinter, sliver, shaving, &c. Pliny uses it: *Naturalis Historia* 9, 15, 18: 16, 11, 22; 29, 2, 9—here "assulae" means the roundish chips made by cutting the root across.

(38) I.e., of the root.

(39) "intentiones"—See Note 17 *ante*.

(40) "Empirici" here not the Empiric School of Medicine but the Quacks, those who practised by rule of thumb and not governed by authority. The real Empirici, those who experiment and find out, are the heroes of Medicine.

(41) "Ratio"—"rationale," reason in nature.

(42) "e propinquis causticis"—an idiom which is a delightful prophecy of our "near-beer," &c., &c. *Nihil sub sole novum*. I do not know that anyone has worked out the derivation of our "chewing the rag," from the Greek of the "Alcestis."

(43) "exsiccatio"; "exustio"—drying out.

(44) Perhaps the professional form may be acceptable.

| | | |
|----|------------------|----------|
| R/ | Axungiae porcinæ | lb. ss |
| | Butyri recentis | 3 ij |
| | Terebinthinal | |
| | Styracis liquidi | ana 3 ij |
| | Thuris | |
| | Myrrhae | |
| | Masticis | ana ss |
| | Iridis | |
| | Aristolochiae | |
| | Gentianæ | ana 3 ij |
| | Hellebori | 3 ij |
| | Sulfuris | 3 ss |
| | Nitri | 3 j |
| | Succi Enulæ | |
| | Succi Opii | ana 3 j |

| | |
|----------------------------------|------|
| Olei Laurini, rosati | q.s. |
| Aceti | 3 j |
| Argenti vivi pars omnium octava. | |

M.

Fiat unguentum in mortario ferreo.

(43) It will be observed that the quantity of ointment to be used is not given—but the extent of the surface to be inuncted is fully stated, very much more extensive than in the practice later on.

(44) One indication out of so many that the theory was that the discharge from ulcers and the saliva excited by the Mercury carry off the *materia affected* by the disease and so purify the whole system. The word I have translated "encouraged" is "sinendum"—to be let alone, to be given leave, &c. The ulcers are to be cured when they have done their work in purifying the system—only then are they to be cured.

It is not so long ago that setons, "issues," were used to purify the blood—so do not let us jeer at Fracastorius.

(45) It was soon perceived that the mercurial stomatitis produced by inunction was much more severe and difficult to manage than that produced by mercury taken inwardly in the proper dose. The former resisted all kinds of treatment and was not always overcome.

(46) The recidivism of Syphilis treated by inunction had considerable to do with the disfavor with which some of the syphilographers regarded the treatment.

(47) "in matellam"—"matella" means a pot; hence "mus in matella" was a proverbial expression for a person in difficulty; readers of Martial will remember the old man and his matella. Here it has the usual meaning of chamber-pot.

(48) "Precipitatum"—Mercury Precipitate.

(49) "Balnea." The Aponus was a warm medicinal fountain near Padua spoken of by Pliny, Suetonius and Martial. The Porretanian Spring is near Porretta and is one of many hot springs in the Apennine Range at Lucca, Monte Cattini, Monsummano, Telese, &c.—there are also cool ones like those at Nocera, Sangemini, Cinciana, &c.

The Calderian Spring is near the village of Caldiero, 9 miles east of Verona—it is a warm medicinal fountain.

These were all well known in ancient and mediaeval times and have not lost their vogue.

(50) "experiencia constare nihil aut parum ea prodesse"—one example in many of Fracastorius' estimate of the value of experience.

(51) "qua Vena Cephalicae pretenduntur"—the Vena Cephalica was so called because the bleeding by it was supposed to relieve any disorders of the head. This view was not wholly obsolete in my own student days; my old preceptor, Dr. Richard Hare Clark, who was an open and efficient enemy of venesection in ordinary practice, continued till his death not half a century ago to contend that in certain forms of mania, bleeding by the left cephalic was helpful—why the *left*, I do not know.

(52) R/

Succi Inulae
Succi Bryoniae
Styracis liquidis

| | |
|---------------------|-----------|
| Terebinthinae | aa 3 j |
| Gummi Eleni | 3 ss |
| Pinguedinis ursi | |
| Pinguedinis anseris | |
| Butyri | aa 3 i ss |
| Iridis | aa 3 iij |
| Olei Irini q.s. | |

Argenti vivi octavam partem.

Some texts give 5 oz. of Gum Elemi, Bear Fat, Goose Fat and Butter, mistaking, I think, the conventional S^v (the double, SS, was not used) for 5.

(53) A somewhat rare but perfectly classical use of "quandoque."

(54) "pro arte"—a more usual form was "secundum artem." Generally in prescriptions contracted into "s.a."

The prescription reads technically:—

R/

| | |
|----------------------------|---------|
| Gummi Ammoniaci | |
| Serapini | |
| Galbani | aa 3 ij |
| Styracis Liquidi | 3 jss |
| Pinguetudinis ursi | |
| Butyri | aa 3 j |
| Hydrargyri quartam partem. | |
| Fiat Emplastrum s.a. | |

Some texts have 6 oz. for 1½ oz. of Styrax, mistaking the peculiar "S" for 5. See Note (52) *ante*.

(55) The word for uvula used here is "gargareo," not known in Classical Latin; the more usual form in Mediaeval Latin was "gargaleo," recognized by Du Cange, which "gargareo" is not.

(56) The word is "bombyx," properly a silk worm or silk; but sometimes applied to cotton or indeed any fine fibre. Pliny, *Nat. Hist.*, 19, 1, 2.

(57) Not *adolescentes* but the diminutive "adolescentuli."

The word I translate "child" a few lines down is "puer," boy.

Social Hygiene and the Health Officer

By DR. D. V. CURREY,

Medical Officer of Health, St. Catharines.

It is a pleasure, I assure you, to be asked to speak to your club to-day, and to try and bring to your attention some aspects of the work which I hope will be of interest to you.

As Social Hygiene is a comparatively new term, it is not surprising that many people do not understand what it implies. In its broadest sense it means the general health of the community, so on this account each Health Officer should be interested in it. If Social Hygiene were really practised we would have normal living conditions, with a wonderful decrease in our death rate, and very little poverty; for, as you know, these are often the result of preventable diseases; the growing up children would be taught sex hygiene, and would have properly supervised recreation where their surplus energy would be expended. Those of us who are interested have for several years been trying to make people realize that Social Hygiene does not mean only Sex Education, although this, no doubt, is a very important part of it. We have been trying to tell people that preventable diseases are responsible for some 40% of our deaths annually, and we have been trying to show that from a Social Hygiene standpoint our mode of living must be changed in order to keep people healthy.

Here in Toronto you have the Headquarters of the Canadian Social Hygiene Council, with branches scattered throughout the Dominion, and in its Secretary, Doctor Bates, the most energetic and keen official it has ever been my privilege to meet. You have in the Ontario Secretary, Miss Hewson, an untiring and zealous worker; and you have a splendid Social Hygiene Council with your Ladies' Club. It is only natural then that Social Hygiene should be well and favourably known here; but when we start to get away from the larger centres things are different. True, there are several Councils, each trying to do something, but the smaller centres have not as yet made a real concerted effort to do intensive work, and so far have accomplished comparatively little. I wonder if the name "Social Hygiene" does not make it difficult to get people interested.

In Ontario there are some hundreds of Health Officers, men who should take an active part in anything which concerns the general

(An address to the Toronto Social Hygiene Club, February 23, 1926.)

health of the people, and men who must realize that to-day the greatest menace to civilization is the Venereal Disease problem; yet I venture to say that comparatively few Medical Officers have ever given a thought to what Social Hygiene means, or how a Local Council could be of immense benefit to his municipality.

I am afraid that too many people (including physicians) think this question only needs to be considered in the larger centres, and I am afraid in many places the Medical Officer of Health is doing very little progressive health work; but if he is a leader in preventative medicine, and becomes interested in Social Hygiene, his Local Council through its parent body may be of great assistance to him.

People must be taught that the propagation of the race is a natural instinct implanted in all healthy, normal people, and that if through lack of control this instinct is so distorted that vice results, then just so surely will we have Venereal Disease. There is no doubt, in my mind, that many young people go wrong because they do not know any better, as young people with Venereal Disease have told me that they have never been told about sex matters at all. Sex education should be taught at home; but many parents feel incompetent to tackle this question, and keep putting it off until a calamity occurs. So in order that parents may avoid mistakes, the Medical Officer of Health should take an active part in the formation of a Social Hygiene Council, get the parents interested, and through the parents teach the children. He should try and interest the physicians of his community in the latest treatment of Venereal Disease by having at his Medical Association each year a speaker on this subject, so that every case of Venereal Disease will be got under treatment and kept until cured, either by the private physician or at a clinic; and he should try and influence physicians to report these cases to the Health Department, so that proper statistics are available as to prevalence.

The Medical Officer of Health may as well realize that he has a large problem before him, that in attempting to overcome it his chief weapon is education, and that a Local Hygiene Council offers him a wonderful help if he takes advantage of it. In this case, as in any other health matter, one cannot help but think of the words of your own Medical Officer of Health—when asked how to interest the public in their health, said, "Educate, educate, educate."

Annual Rest Periods

By BERT MERSON,

Vice-President Trades and Labour Congress of Canada.

The following resolution re annual holidays was passed at our recent convention, and we are submitting it to-day, hoping the Ontario Government will bring in such a Bill at the next session of the legislature:

"RESOLVED that the Government be requested to enact legislation to compel all employers of labour, to give all employees at least two weeks' holidays with full pay each year, ten months' or more employment to entitle all employees to the benefits of such an Act."

We believe the time has arrived in our social and industrial life when the need of all workers for a proper rest period with pay each year must be attended to.

A few far-seeing and thoughtful employers are already acknowledging that fact, and to ask them to continue in competitive business with others, who have not the welfare of their employees at heart, is asking a great deal of them; and we are of the opinion that the only just way to deal with the situation is to enact the legislation we are asking for.

The granting of such a rest period will not be such a burden on industry that many people who have not given it thought would have us believe, as it will so increase the moral and industrial efficiency of those benefiting by it, that the cost in the end will be negligible. It will also go a long way toward preventing accidents, many of which are now caused by men and women being "run down" and needing such a change and rest from their daily routine. This preventing of accidents means a great saving of Workmen's Compensation. It will also help to eliminate much of the sickness that is at present responsible for the workers of our country losing annually over 21,000,000 working days.

From the government viewpoint it should be welcomed, as not only will it help considerably to reduce the payments to Mothers' Allowances, Hospitals, and other institutions, but it will go far toward solving the unemployment question, and many other social evils.

From the workers' standpoint it will fill a long-felt want, and send joy to many a home when it is known the breadwinner can look to two

weeks' rest each year, without having to call on the rest of the family as well as himself to make enough denials from their daily necessities to cover the wages for a holiday, as they have to do at present.

It will also remove the present injustice of one class of workers being called upon to produce enough each year for certain of their fellow employees to receive a holiday. While they, who are generally employed at the most hazardous, unhealthiest, hardest, and usually by far the most uncomfortable jobs, must work year in and year out without a rest, unless taken at their own expense.

At present the scales of justice in this connection are absolutely unbalanced. The ordinary worker in industry works about 50 hours a week, or 2,600 hours per year. Whilst those connected with what is usually termed the "Staff" work as a rule 35 hours a week, and get two weeks off and all public holidays, etc., making their total hours for the year around 1,900. Or, in other words, while the "Staff" worker works one year, the other worker works a year and a half.

We also notice that, in addition to those mentioned being rested, even the horses and machinery are also rested.

And we claim the time has come for the government to take cognizance of facts and supply the remedy we suggest.

The matter is already claiming the attention of many governments in various parts of the world, some of whom have enacted the necessary legislation, foremost among these being Mexico and Czecho-Slovakia; and we are convinced that a country blessed with the natural resources and other advantages we so often hear about in Canada cannot continue to lag behind in such a necessary piece of social legislation.

Radio Talk

The Relation of a Social Settlement to Community Life

By G. TOWER FERGUSSON.

Radio talk arranged by the Canadian Social Hygiene Council and delivered from CKCL, Toronto.

It has been frequently stated that the chief function of a Settlement is to give to its neighbourhood those things lacking which are essential to normal conditions. So, first a house is chosen, situated in a district where the advantages are less than in more privileged localities. The atmosphere of that house needs to be that of a real home, the workers to live in residence 24 hours of the day with the purpose of being neighbours in the highest sense of the word. Neighbourliness in this sense means, as it does in the story of the Good Samaritan, being of use to the Somebody who needs you in whatever way they need you and at whatever time of day or night they need you. The idea is not of a house where relief is administered in the handing out of clothing and food, though that may at times be necessary; but it is to minister more to poverty of mind and spirit. The great end of such service is the encouraging in times of discouragement, the enlargement of powers, the fanning into flame of ambition, the finding of capacities for independence and self-respect, and the cultivating of desires for finer things—culture, education and spiritual development. These developments can be fostered by a real friendship with the worker, when they could be stirred by no other means.

The physical environment of the particular district is studied almost foot by foot. Residents are continually securing first-hand information about rents, the conditions of houses, the numbers of rear houses and their lack of proper plumbing facilities, and the number of people who are often forced to crowd into a few rooms. Every day of their lives residents are made painfully aware of the numberless children, whose only play space is a back step, a rear lane or a street teeming with wagons, motors and trucks.

Hand in hand with this every day knowledge of the locality goes an every day knowledge of its people. Residents, through calling and casual meetings, pick up fine points about race prejudices, social distinctions resulting from different moral and financial standards, and all

the little intimate things that make or mar neighbourly relations. They become aware of the most pronounced district leanings, which often amount to most determined antipathies, political, industrial and social. They learn of most unanimous opinions on subjects like liquor laws, the Adolescent School Act, etc., which an outsider would never even suspect.

This intimate and friendly knowledge decrees the nature of the work undertaken by the Settlement. As a result of it the workers know whether people are needing a place for social life for the mothers, recreation for children, a club for men, night classes in English, clinics, musical training, a visiting housekeeper, a children's library, or possibly religious services or religious story hours for children. Some places will require more of one side, some more of another.

In Toronto the recreational side has been forced to the fore, because, in spite of the Parks Department's wonderful development of rinks and playgrounds, there is as yet a pathetic lack of play facilities for children. The Settlements welcome this demand for recreation, because they realize that, to a child, proper recreation is as essential to development as food or sleep, and that it is almost the greatest of character building influences. It is in his play that the child tries out, learns the practical application of, and masters the principles of, self-control, courage, team play and kindness that he is being taught in Church, school and—one hopes—in the home.

To the adult, recreation is not merely the recoil from stress and strain of work done, nor preparations for burdens waiting to be borne, but a way to re-creation—better health, better spirits, new friendships and new courage. To many their Club night is the one bright spot of the week.

So, for mothers there are sociable club-meetings, interspersed with talks on cooking, health and home problems; for the men there is usually a peaceful gathering spot which vies with the post office or grocery store in a village as a recreational centre. Here is a natural opportunity for debates and arguments and occasional lectures and talks from outside authorities.

The usual children's library is a charming spot, where a love of books is developed, which naturally leads the child later to the larger resources of the public library.

Little girls troop in for dignified Club meetings, followed by games and folk dances, and return at other times for gymnasium classes, story hours, dramatic rehearsals and chorus training.

Small boys find an outlet for their amazingly active little minds and bodies in Clubs, gymnasium work, games and story hours. Older boys

often have their whole moral fibre straightened and strengthened by the qualities of courage, endurance and fair play developed through their sports and gymnasium work.

Special training is found for the talented child. The cripple, the "shut in," the sick, the old, and even the degenerate, are the objects of special attention and care. Many times their misfortune makes an opportunity to bring out the kindness latent in other Club members.

Nevertheless, the major effort of the Settlement is the drawing out of every possible capacity of that majority of any community—the person of average (ordinary) ability.

The raising of children, because it brings perplexing problems for thinking parents, affords Settlement groups their chief chance to enter into family life, and all services of the Settlement should be wrought into the family programme. There is a constant endeavour to create a conspiracy where teachers, club leaders, grandparents, aunts, uncles, family friends and kindly interested neighbours reinforce the better leanings and impulses of the children and young people. Seeds of thought are planted through calling, telling of a neighbour's illness, sorrow, or perhaps success, thereby perhaps promoting sympathy and neighbourliness. The art of gossiping about helpful things proves useful. Much can be done through Club work and classes. When several members of one family are members of various Clubs in a Settlement there is the common interest in the Settlement, in the workers, in library or concerts, Christmas and Hallowe'en parties. This common interest always strengthens family ties.

It is a much simpler matter to get a Club spirit than a neighbourly spirit. In Clubs the members are more or less congenial—neighbours are not always so, especially in a district with mixed nationalities, or where some of the families have low moral standards. But to create a sense of district pride or responsibility is a difficult and evasive task, but it is an object worthy of many a day and year of patient endeavour. A contest in front yard or back yard gardening, an epidemic of painting or some such tangible effort may be a first step toward a community interest.

So the Settlement aims to bring about a richer, fuller life for all—realization of individual, family and district possibilities, larger interests, greater sympathies, a spirit of mutual helpfulness, a wider horizon—a more abundant life for all.

In Toronto there are five Settlement houses represented in the Federation of Settlements, and there are other organizations doing similar work where the workers are not in residence. The five in the Federation are all situated south of College Street and west of Yonge.

Central Neighbourhood House on Elm Street, supported by the Federation for Community Service, is in a district where many foreigners are living. Scott Institute—a Church Settlement—has its centre on Elizabeth Street and is headquarters of the new Anglo-Saxon work undertaken by the United Church of Canada. University Settlement has for years served the community in the district near its house, the corner of Peter and Adelaide Streets, but this Settlement is shortly to move to John and Grange Streets. St. Christopher House, also supported by and under the direction of the United Church, is situated on Bellevue Place in a district where Jew and Gentile live in about equal numbers; while Memorial Institute is the furthest west—on Richmond Street near Tecumseh—and is supported by Walmer Road Baptist Church. None of these are doing denominational work, but each is seeking to provide the advantages needed by their whole district.



The Provincial Board of Health of Ontario

Communicable Diseases reported for the Province for the Weeks
ending December 5th, 12th, 19th, 26th, 1925

COMPARATIVE TABLE.

| Diseases | 1926 | | 1925 | |
|--------------------------------|-------|--------|-------|--------|
| | Cases | Deaths | Cases | Deaths |
| Cerebro Spinal Meningitis | 3 | 2 | 8 | 4 |
| Chancroid | — | — | 15 | — |
| Chicken Pox | 785 | — | 539 | — |
| Diphtheria | 201 | 18 | 285 | 17 |
| Encephalitis | 2 | 1 | 11 | 9 |
| Gonorrhoea | 190 | — | 216 | — |
| Influenza | — | 31 | — | 24 |
| German Measles | 511 | — | 13 | 1 |
| Measles | 1988 | 2 | 1576 | 3 |
| Mumps | 588 | — | 1112 | — |
| Pneumonia | — | 227 | — | 241 |
| Poliomyelitis | — | — | 4 | 3 |
| Scarlet Fever | 820 | 4 | 621 | 10 |
| Septic Sore Throat | 2 | — | 3 | 1 |
| Small Pox | 86 | — | 13 | 1 |
| Syphilis | 162 | — | 163 | — |
| Tuberculosis | 163 | 79 | 158 | 88 |
| Typhoid | 26 | — | 40 | 3 |
| Whooping Cough | 420 | 2 | 427 | 8 |

The following municipalities reported cases of small pox:—Toronto, 4; York Tp., 1; Etobiocke Tp., 1; King Tp., 7; Belleville, 4; Trenton, 8; Midland, 1; North Bay, 3; Warren Tp., 1; Ottawa, 1; Waterloo Town, 1; Kitchener, 26; Wilmot Tp., 6; Admaston Tp., 5; Alice and Fraser Tps., 6; Rama Tp., 2; Hillier Tp., 2; Packenham Tp., 1; Aspholel Tp., 1; Oakville, 1; Sidney Tp., 1; Kapuskasing Tp., 1; Bagot and B. Tps., 1; Blenheim Tp., 1.

JOHN W. S. McCULLOUGH

Notes on Current Literature

From the Health Information Service, Canadian Red Cross Society, 410 Sherbourne St., Toronto 5, readers of the "Public Health Journal" may borrow any of the articles listed. Please mention the date of issue of this Journal and the title of the article desired.

Ontario Junior Red Cross Handbook

Copies of this handbook, issued as Bulletin No. 8, may be obtained from the Ontario Division of the Canadian Red Cross Society, 410 Sherbourne Street, Toronto 5, Ontario.

Red Cross Visiting Housekeepers

A description of the Visiting Housekeepers' Centre, run by the Toronto Branch of the Ontario Red Cross. By Miss Norah Hill, of the League of Red Cross Societies. "The Red Cross", January, 1926, page 4.

Child Welfare Legislation in Canada

A review of Child Welfare Legislation in Canada from 1920 to 1925. By Charlotte E. Whitton, of the Canadian Council on Child Welfare. "Social Welfare", January, 1926, page 79.

Improvements in Child Hygiene

An address presented to the American Public Health Association. By Dr. C. H. Kenne, Professor of Hygiene, University of Buffalo. "American Journal of Public Health", January, 1926, page 29.

Standards of Prenatal Care

An outline for the use of Physicians, published by the U.S. Children's Bureau, Washington, D.C.

Warm Lunches for Rural Schools

By Jeannette E. Pugh, R.N. "The Public Health Nurse", January, 1926, page 4.

The School Teacher and Physical Education

"Hygeia", January, 1926, page 27.

Health and Regularity of School Attendance

A study of the relationship between health and regularity of school attendance. By Drs. H. H. Mason and J. T. Howell, of Teachers College, Columbia University. "Monthly Bulletin", N.Y. City Department of Health, December, 1925, page 146.

Junior Health League Classes

As conducted in the Public Schools of Toronto. "The Canadian Nurse", February, 1926, page 89.

Cancer Mortality

The trend of cancer mortality in ten of the United States from 1900 to 1920. "Public Health Reports", January 1, 1926, page 1.

Recent Discoveries About Cancer

The "Campaign Notes" of the American Society for the Control of Cancer for January, 1926, contains an article on the recent discoveries of Gye, Barnard and Dr. Blair Bell.

Communicable Diseases Among Nurses

By Dr. H. B. Cushing, Montreal. "The Canadian Nurse", February, 1926, page 61.

Protection Against Diphtheria

A discussion of the extent to which diphtheria may be eliminated by means of the Schick Test and active immunization, with reference to work done in Auburn, New York. "Michigan Public Health", February, 1926, page 27.

The Control of Scarlet Fever

An address by Dr. George F. Dick, of Chicago, reviewing the recent important work on the prevention of scarlet fever. "Michigan Public Health", January, 1926, page 3.

The Prevention of Tuberculosis

By Linsly R. Williams, "Hygeia", January, 1926, page 47.

Tips on Talks

Some hints for health speakers, based on lectures given to post-graduate students and health workers. By Margaret E. Green. "National Health", January, 1926, page 250.

Sickness Among Industrial Employees

A study of the incidence and duration of disabilities from important causes among 133,000 industrial employees. "Public Health Reports", U.S.P.H.S., January 22nd, 1926.

The Death Toll of Maternity

The maternal mortality experience of the Metropolitan Life Insurance Company during the past 14 years. "Statistical Bulletin", Metropolitan Life Insurance Company, November, 1925, page 1.

Sanitary Inspectors' Association of Canada

"REDUCTASE" TEST FOR MILK

The following article, from the pen of Professor A. A. Bickerton, is reprinted from "The Review," the official organ of the New Zealand Sanitary Inspectors' Association.

"The "reductase" test is a special test prescribed under a Regulation of the Pure Food and Drugs Act, to prevent the sale of milk unfit for human food. A specific method is prescribed that has merely a legal value, because all that is required to make the test for one's health sake is that a drop or two of a solution of a dye, known as methylene blue, be added to a small sample, contained in a glass or tube of the milk to be tested. So long as the sample remains blue it is safe to drink the milk, but if the colour changes to white it ceases to be so, although it may, for some hours after, be used for making puddings, etc., or if boiled.

Unlike litmus, methylene blue does not show that the milk is developing acid, and so becoming merely sour; but it indicates the much more important fact that when the blue has changed to white the milk has lost all its free oxygen, which becomes used up by the living organisms which are known as "reductives." These organisms are so greedy for oxygen that they extract all contained in the methylene blue salt, and so makes it white, just as the red colour is taken from oxide of iron (rust) when it is changed back into iron.

Animals live by breathing the oxygen in the air to burn their food, so producing warmth and vital energy. Plants cannot live on oxygen, but live on a gas breathed out by animals; *via* carbonic acid, and from this plants subtract the carbon, and return the purified oxygen to the air. Thus there are two great kingdoms, the animal, which forms from oxygen gaseous food for the vegetable kingdom, that again purifies the air for the animals. Even when the organisms are so small that some cannot be seen by powerful microscopes, this difference exists, and hence there are some micro-organisms which live in the presence of air (oxygen), and others that come after the oxygen has all been used by the former. These latter are dangerous to humans. In their milder forms they are the bacteria which produce the putrefactive changes that give the bad smell to meat and rotten eggs, and this offensive smell is Nature's warning to us of danger. More deadly species of

bacteria turn nitrogenous food into poisonous animal bases that are called "ptomines." These smelly safeguards do not appear in milk so timely, because the sugar in the milk is turned into acid by air-living microbes, and this acid prevents the smell becoming apparent until too late to be a safeguard. It is to this fact that the methylene blue test owes its supreme importance. It proves when the oxygen has left the milk and putrefactive changes, or greater dangers, have set in.

The milkman who has recourse to the "cow with the iron tail," and therewith adds pure water to milk, does no harm to the health of his customers; and should the liquid not prove sufficiently nourishing, well, you can increase your supply. The milkman merely becomes a thief. If fat is subtracted from the milk, it is more serious, especially for infants or invalids, because the ratio of fat to proteids and carbohydrates is altered, and diseases due to malnutrition may occur. But the man who distributes milk which gives a bad reductase test may be a potential murderer; for no mother's milk that I have tested gave a white test, not even after the milk had become so old that the curd and serum separated. This was also the case with some cow's milk that had not become infected with "reductase." So, under healthy natural feeding, infants and calves get pure sterile milk. Therefore it is dangerous to feed an infant on milk giving a white reductase test. With regard to adults, who are not so dependent on milk alone for food, the case may not be so serious. But it is bad enough, and the reductase test is the only safeguard from many diseases, and also the dangerous food poisoning group of bacteria in milk. Boiling or pasteurising is not sufficient, for milk may become infected after, as actually occurred in a recent local case, when a small jug of boiled milk, left overnight, poisoned a milkman and his family—several fatally. What might have happened if he had poured the infected milk into that supplied to his customers I will leave to your imagination, and also the havoc that could be inflicted upon a community should powerful milk co-operations continue to succeed in legally evading the law, by such refined academic excuses as those which have been recently made to escape punishment for selling bad milk. They risk causing a whole town to be infected with the microbes that lately poisoned the milkman and family, and in the past devastated a French army. When it is considered that the recent epidemic of "infantile paralysis" was due to an organism that followed in the pathway of our milk supplies, it makes one thoughtful. The legally prescribed "reductase" test is not harsh or unfair, but a common sense practical test that detects milk already legally unfit for sale. For good fresh milk will not give a white test for at least twenty-four hours at a temperature about 100 deg. F. And milk kept cool and clean will

comply with the required three hours' test even after twenty-four hours; therefore, if the legal test be applied before 6 o'clock in the evening of the day from which the milk is obtained from the cow, it will not give a white test, unless the milk is either very dirty, mixed with stale milk, not properly cooled, or taken from a diseased cow, and the sale of milk under these conditions is illegal without the test.

Monthly Jottings of Sanitary Inspectors

It is not too early to commence on the arrangements for the Annual Convention, which is to be held this year in Brantford, Ont.

At last year's Annual Meeting, it was decided to leave the dates of the Convention with the Executive, as there was doubt as to a suitable time.

We had a letter from our old friend, Mr. W. Glover, of Brantford, and he states, "as regards the time of meeting, I would suggest the first week in September, as that is the time of the Toronto Exhibition, and no doubt the members from the West would like to visit that."

Drop a line to the Secretary and let us know what, in your opinion, would be the most suitable time.

With so many large centres convenient to Brantford, it should not be hard to obtain plenty of good speakers for our programme. We would like, however, to have a few papers from our own members, especially upon topics close to our own work.

At a recent meeting of the Executive, the matter of issuing a yearly certificate of membership was brought up. We shall be glad to have the views of the members upon this. It is also suggested that we should have a seal. Here is an opportunity for members who have talent along this line. Sketch out a form of certificate or design a seal and send it on to the Secretary.

The Jubilee Celebration of the Royal Sanitary Institute is to be held in London, England, next June. We understand that all of the large cities throughout the Empire have been asked to send representatives to this gathering. The City of Melbourne has seen fit to send their Sanitary Inspector at a cost of £1,400. It is to be hoped that Canada will be represented by a goodly number of delegates.

Conference of the Ontario Committee Canadian Social Hygiene Council

The Ontario Committee of the Canadian Social Hygiene Council met at Hygeia House, Toronto, on February 23rd, 1926.

The object of the gathering was essentially to bring together representatives from the various local Councils in the Province, as also a number of interested individuals and officials of the National Council, in order to gather first-hand information and suggestions from these points in the Province, as to their special accomplishments or further needs, and to correlate these for the good of all, and the Province as a whole.

Mr. A. E. S. Smythe, Chairman of the Committee, presided over the meeting. Among those present were: Miss Estelle Hewson, Secretary; Dr. Gordon Bates, Toronto; Mrs. H. B. Black, Lindsay; Dr. J. H. Radford, M.O.H., Galt; Dr. C. P. Fenwick, Toronto; Dr. R. M. Boyd, Fort William; Dr. L. A. Pequegnat, Toronto; Mr. T. A. Stevenson, Toronto; Mrs. H. Dunnington-Grubb, Toronto; Mrs. Wm. Podd, Port Arthur; Mrs. F. J. Greenaway, London; Mr. P. A. Bowen, Kitchener; Dr. D. V. Currey, M.O.H., St. Catharines; Dr. N. H. Sutton, D.O.H., Peterboro; Mr. A. D. Hardie, Toronto; Mrs. A. A. Perry, Toronto.

Following the opening remarks of the Chairman, Dr. Gordon Bates reviewed briefly the progress of the Canadian Social Hygiene Council's work in Canada. He pointed out that the Council had been organized as an auxiliary to the Dominion Government scheme for the control of Venereal Disease, and by means of organizing local communities had done much to make this scheme effective. He reviewed the successes and failures of Social Hygiene Councils, gave some indication of the broader fields towards which the work of Social Hygiene was inevitably tending, and instanced periodic health examination and pre-natal clinics as two developments which should be supported. He felt that the work of the Council had been of value to the official health authorities, but asked for criticism and suggestions as to how to make the work of local committees more effective, especially in view of the fact that many of the Councils are inactive except for occasional activity.

At a later juncture Dr. C. P. Fenwick, Secretary for Toronto, stated in this connection that the Executive of the Toronto Social Hygiene Council was already considering the advisability of broadening its programme considerably. It was evident that a broader policy would

better equip it to co-operate with the Departments of Health towards certain ends which were difficult of approach because of the lack of necessary public education, and suggested that an organization dealing with general health problems would be of more value to the health authorities.

Early during the meeting, Miss Estelle Hewson, Secretary for Ontario, after reading messages of greeting and regret at inability to be present from representative persons from a dozen or more points in Ontario, reviewed the activities of her department and of the local Councils in the Province for the period of the last two years. Tribute was paid to the co-operation and assistance being offered by the Provincial Department of Health and numerous of the local Boards of Health and officials.

Reports of progress were also brought from their respective points by Mr. P. A. Bowen of Kitchener, Mrs. F. J. Greenaway of London, Mrs. H. B. Black of Lindsay, and Mrs. W. Podd of Port Arthur.

Dr. D. V. Currey, M.O.H. of St. Catharines, and Secretary of the Lincoln County Social Hygiene Council, presented a splendid paper outlining what might be a model program of activities for a local council over a period of any one year. His timely advice was well received, and his address illustrated how closely the ideas of the National Office with respect to the presumed needs of a community coincide with those developed by one on the ground making a study of the actual needs of that community.

Dr. N. H. Sutton, District Health Officer, reported for the Council at Peterborough, and incidentally stressed the need for greater co-operation between the local councils and the health authorities. Dr. Sutton felt that in many places, owing to the lack of this link, much effort was going to waste on either side.

Dr. R. M. Boyd, M.O.H. of Fort William, and Dr. J. H. Radford, M.O.H. of Galt, spoke along very similar lines, pointing out the usefulness of a local council to the success of their efforts, and emphasizing the added service which could be rendered by a broader policy of health activity as had been proposed.

Dr. J. W. Hunt, of the Provincial Department of Health, spoke of the work of the Council and its locals, referring especially to their value as an auxiliary force aiding the Provincial Department in its efforts to bring the venereal diseases under control. The Province was furnishing treatment facilities, and was making available a limited amount of literature, but was depending largely upon the Social Hygiene Councils to carry on the necessary education and propaganda among the people of the Province. He stressed the value of the Exhibits which have been

shown in many places, and expressed the hope that they return to a number of these places and that they be shown at a number of strategic points in the North country, where as yet very little propaganda has made its appearance. The pamphlet, "Appendix to the Diagnosis and Treatment of Venereal Diseases," prepared by the Main Medical Committee of the Council and distributed by the Federal Department of Health, has proven its worth to medical practitioners. A concise statement of the clinical work being done in the venereal disease field by the Province concluded the address by Dr. Hunt.

Mr. A. D. Hardie, Educational Secretary, outlined to those present the work of the Division of Education, drawing attention to the revised panel of speakers and to the new pamphlet, "Tell Your Children the Truth," a new distinctive publication for the use of parents, the product of the Education Division.

Dr. L. A. Pequegnat spoke of conditions in Hamilton and Ottawa. The Hamilton Council had been recently reorganized, and Ottawa is at present planning a financial campaign to carry on a work which has been well started, and which has already accomplished considerable during the past few years.

Before conclusion of the meeting a resolution of a congratulatory character was passed, to be sent to the Premier of Ontario, commending his action in the organization of a Ministry of Health, an action which has already resulted in an advanced program for this Province.

A further resolution was passed soliciting further assistance from the Provincial Government towards the continuance of the work of the Canadian Social Hygiene Council in the Province of Ontario.

After fixing May 3rd of this year as the tentative date for the next meeting of the Ontario Committee, the business session was adjourned.

Correspondence

The Editor, PUBLIC HEALTH JOURNAL.

Sir:

I beg to remind you that the Fifth Conference of the International Union against Tuberculosis will be held at Washington, on September 30th, October 1st and 2nd, 1926.

The following are the subjects chosen for discussion:

- (1) *Clinical Subject.* "The part played by contagion in tuberculosis among adults." Reporter: Professor Gaetano Ronzoni, of the University of Milan.
- (2) *Biological subject.* "Anatomical structure of tubercle, from histogenesis to cavity." Reporter: Dr. Allan Krause, Baltimore.
- (3) *Social subject.* "Tuberculosis and milk." Reporter: Dr. William Park, New York.

In addition a public address will be given by the President of the National Tuberculosis Association (New York) and President of the International Union, Dr. Theobald Smith.

I beg to remind you that in virtue of Article IV of the By-laws, all councillors and ordinary members of the Union are invited to the Conference, of which they are members by right. Moreover, a third category of members mentioned under the last paragraph of Article IV of the By-laws as "Members of the Conference," will be admitted to the Conference on the recommendation of the National Anti-Tuberculosis Association of their respective countries, or, in certain cases, on the recommendation of their national Government, when the latter is a member of the International Union. "Members of the Conference" will be expected to pay a subscription of five dollars.

Applications from Councillors and Ordinary Members must be sent directly or through the intermediary of National Associations to the Secretariat of the Union, 2, Avenue Vélasquez, Paris, with the exception of members from America.

No application from "Members of the Conference" may be received directly by the Secretariat of the International Union; those persons who wish to be admitted to the Washington Conference in this capacity must send their applications to their own Association or National Government, which will communicate them to the Secretariat of the Union.

A list of Governments and Associations belonging to the International Union is enclosed.

DISCUSSION OF REPORTS

All Members of the Union, as well as "Members of the Conference," who wish to take part in the discussion are requested to send their names to the Secretariat of the Union. They are also requested to leave at the Conference's Headquarters a copy of their reports, which must not exceed four printed pages (size of Accounts of Proceedings of the Conferences of the Union).

LANGUAGES

Official languages in use at the Union are those of the League of Nations, French and English (and, on principle, the language of the country in which the Conference is being held). The text of official reports will only be published in French and English.

AMERICAN NATIONAL CONFERENCES

The Executive Committee of the International Union particularly wishes to remind all members attending the International Conference, of the Annual Meeting of the American Association, which will follow the International Conference immediately, and which is of special interest from the point of view of the scientific and social work in connection with the anti-tuberculosis campaign in the United States. The Executive Committee particularly urges all members attending the International Conference to be present at this important meeting, concerning which they will be notified directly by the American Association. The duration of this Conference will probably be one week. It is hoped, therefore, that the majority of members attending the Conference will stay in the United States from September 29th until October 9th, 1926. The Secretariat of the Union will take this into account, while arranging for reduced return fares.

Yours faithfully,

LEON BERNARD,

Secretary General.

—International Union Against Tuberculosis.

News Notes

At an organization meeting of health officials held in Regina on March 5th a new Association was formed under the name of the Saskatchewan Health Officials' Association.

The object of the new organization is to promote public health in all its branches in the Province of Saskatchewan, and membership is open to all salaried officials engaged in public health work in the Province.

The following patrons and officers were elected:

Patrons—His Honour the Honourable H. W. Newlands, Lieutenant Governor of Saskatchewan; the Hon. J. G. Gardiner, Premier of Saskatchewan; the Hon. J. M. Uhrich, Minister of Public Health.

Hon. President—Dr. M. M. Seymour, Regina.

President—Dr. Arthur Wilson, Saskatoon.

Vice-President—Dr. M. R. Bow, Regina.

Secretary—Mr. R. H. Murray, Regina.

Executive—Dr. H. C. Burroughs, Swift Current; Mr. F. Cartlidge, Moose Jaw; Dr. J. H. Jackson, North Battleford; Mr. P. McElmoyle, Regina; Mr. A. Wright, Prince Albert.

The Association has been started by the Medical Health Officers of the cities of the Province and some twenty full time Sanitary Officers, who have felt the need of an organization in the Province, which would permit of local health problems being discussed in detail.

There are between 200 and 300 part time Medical Health Officers who will be asked to join the organization; and it is also proposed to include all other groups of public health workers, including school nurses, municipal engineers, laboratory workers and veterinary inspectors employed by municipalities.

The first annual meeting of the new Association will probably be held at Saskatoon, at the same time as the convention of the Saskatchewan Medical Association in July of this year.

Book Reviews

Feeding and Nutritional Disorders in Infancy and Childhood, by Julius H. Hess, M.D., Professor and Head of the Department of Pediatrics, University of Illinois College of Medicine: Chief of Pediatric Staff, Cook County Hospital: Attending Pediatrician to Michael Reese and Englewood Hospitals: Consulting Pediatrician, Municipal Contagious Hospital, Chicago: Member of Advisory Board, Children's Bureau, Department of Labour, Washington, D.C. F. A. Davis Company, Publishers, Philadelphia. Price \$4.50 net.

This volume, which has now reached its fourth edition, is divided into nine sections.

Part I deals with the anatomy and physiology of the digestive tract, metabolism in the infant, and the bacteria of the Digestive Tract.

In Part II are discussed breast-feeding, the feeding of premature infants and nutritional disorders.

Part III takes up artificial feeding, recent progress in this direction, diets for the periods of six months to six years, and discusses the food values of individual meals.

Part IV includes a description of the nutritional disorders in artificially fed infants, with the distinctions between those with and without diarrhoea. There are chapters on Athrepsia, Anhydremia, Infection and Nutrition, and Celiac Disease.

Part V comprises a valuable consideration of the subject of Rickets, including treatment by heliotherapy and ultraviolet rays.

Parts VI, VII and VIII treat respectively of Infantile Tetany, Scurvy and Acidosis.

The Anemias of Infancy are considered in Part IX.

There is an Appendix on the various proprietary foods, the preparation of infants' foods, the care of bottles and nipples, bathing, weights and measures, and general development, records and history forms.

The Index, binding, paper and illustrations are good. This is a modern and useful book.

The Mothercraft Manual. Mary L. Read, B.S. Little Brown Company.

"The time is coming when women will no more go into physical and spiritual motherhood unprepared, trusting to 'Mother Instinct,' than they will go into law or medicine, trusting to their sense of right

and of sympathy with the sick to guide them," says Charlotte V. Gulick, in concluding her introduction to this remarkable manual for mothers by Mary L. Read. The author says: "Slowly, but certainly, there is coming a new ideal in education; children and young people are to be prepared for living. They are to know how to develop physical vitality and mental ability and spiritual power. They are to be prepared in spirit and intelligence in skill and science, in personality and technique, for the responsibilities that most of them will assume for the greatest responsibility any of them can assume—home-making and family rearing."

"The Mothercraft Manual" is a text book of all available present day knowledge on these subjects, and it does not stop at the emanation of facts and theories. It gives the most definite instructions in the skilful practical doing of all that is involved in home-making and family rearing.

How to establish a real home, how to prepare for Motherhood, the things young parents should know about heredity, eugenics, dietetics and the laws of health, are all carefully demonstrated.

Every detail relative to the proper preparation for or care of the baby is supplied in this manual, which is profusely illustrated with pictures showing right and wrong methods or materials. Young mothers will find it a treasure house of accurate, well tried out knowledge concerning all the problems of physical and mental development of the child.

As compared with the old "Household Help" types of book, the Mothercraft Manual is of ninety per cent. more value and usefulness; and in its chapters on studying The Individual Child, A Curriculum for Babyhood, Games, The Toy Age, Story Telling and Handwork, it displays in every paragraph a wide knowledge of not only the latest developments in preventive medicine, but of applied psychology.

A valuable addition to the book is the extensive Bibliography covering a large list of useful books, periodicals or pamphlets on the subjects under discussion in the Manual. A carefully prepared index is another excellent feature of Dr. Read's book, which can be unreservedly recommended to all prospective or actual founders of families. If—as is often alleged—America is the country where the *home*, as we have known it, is most decadent, it is also the country where an unusually large number of highly trained minds are turning their attention to a re-building of a new and better home, on a firmer, stronger basis. The Read Manual is one of the corner stones of this edifice, and in offering it, the author has done a fine service to the coming race of Mothers and Home-makers.

A. A. P.

Editorial

THE CANADIAN HEALTH CONGRESS

The Officers of the three organizations that are sponsoring the Health Congress, which is to be held in Toronto during the week of May the 3rd, are extremely anxious that every professional or lay health worker shall feel that he or she has a definite part in this gathering. They ask that you come not from a sense of duty, but in a spirit of anticipation.

The Programme, the preparation of which is well advanced, should make when published a very definite appeal. It is the desire of the programme committee to arrange not only for the presentation and discussion of subjects of present major interest to those in attendance, but they are equally anxious to make it possible for individuals or groups of individuals to see in actual operation any of the health activities carried on within the city or in the immediate vicinity. A list of the points of special interest from the standpoint of public health will be published in the next issue of the *JOURNAL*.

The opportunity to meet with those who are doing a comparable piece of work, in another part of the Province or Dominion, those who are surmounting the same difficulties that face you, should appeal to all, but perhaps more particularly those who are working in the smaller centres. Make the necessary arrangements that will assure your attendance at what will undoubtedly be the greatest gathering of health workers ever held in Canada.

AUTOMOBILE FATALITY

Safety organizations and thinking people generally are becoming alarmed, and rightfully so, at the appalling number of fatalities resulting from automobile accidents on this continent.

In the January 1926 Bulletin of the Metropolitan Life Insurance Company, some statistics of a most striking character are presented. These statistics have to do with death returns from approximately sixteen million American and Canadian Policyholders of the Company. Statistics carefully prepared as these are, and from so large a portion of the population (equal to one-seventh of the population of the United States), must be accepted as authentic and reliable.

From among these policyholders there were, during 1925, 2,724 such fatalities, a rate of 16.7 per 100,000 policyholders. Significant is the fact that in the experience of this Company this death rate has increased

by 50% since 1920, has trebled since 1915, and was in 1925 seven times the rate in 1911.

Some idea of the seriousness of this situation may be gathered from the following table, drawn from the experience of the Metropolitan Life Insurance Co., in which automobile death rate is compared on a ratio-basis with the death rates of some of the commoner, well known causes of death, towards the reduction of which so much effort has of recent years been directed. For example, in 1915 there were somewhat more deaths from measles than from automobile accidents; in 1925 there were seven times the deaths from the latter than there were from measles.

| 1915 | <i>Deaths From</i> | 1925 |
|------|--------------------|------|
| 2½ | Typhoid Fever | 1 |
| 1 | Automobile | 4 |
| 1 | Measles | 1 |
| 1 | Automobile | 7 |
| 4 | Diphtheria | 2 |
| 1 | Automobile | 3 |
| 3 | Railroad | 1 |
| 2 | Automobile | 4½ |

Whereas in 1915 automobile fatalities numbered about 7% of the total accident deaths, in 1925 this percentage had grown to the enormous proportion of 25%. Approximately 40% of these deaths from automobiles were among children under 15 years of age. The automobile as a menace to child life is becoming a matter of extreme moment.

Advance figures from the United States Registration Area indicate that in that area there were between 15,000 and 16,000 automobile fatalities during 1925. A recent communication from a highly reliable source points to the likelihood of a total of approximately 24,000 deaths incident to traffic in the whole of the United States during the same year; about 85% of traffic deaths are automobile fatalities, at which rate the United States will have piled up the terrible toll of approximately 20,000 lives taken by the automotive vehicle alone.

In Canada, the situation is obviously very much better, although we are reminded that in this country there are relatively fewer automobiles and congestion is much less acute than in our neighbouring Republic. But is our outlook any better than that of the United States? Despite this somewhat pessimistic question we have the assuring statement from the head of the Ontario Safety League that the City of Toronto, with its large number of cars and with all its congestion, is the safest city on this continent from the automobile menace standpoint. The total fatalities from automobiles in Ontario for 1925 numbered 298, in

Toronto 43. Toronto, with one-fifth the population of the province, does not contribute one-fifth of the fatalities, although it might be expected to contribute more than its pro-rata quota. Compared with the United States, Ontario furnishes only two-thirds the death rate and Toronto less than one-half the rate of that country. Nevertheless, notwithstanding the favourable comparison obtaining in this respect in this country, there is yet need for concerted effort in the direction of prevention, especially when it is realized that this class of deaths is one that is almost wholly of a needless sort.

The study of a Toronto Chart prepared by the Ontario Safety League provides a number of interesting observations. During recent years the number of cars has greatly increased. Fortunately the number of fatalities has not grown at the same rate. One might expect that during the colder months, when roads are perilous, there would be a rise in the accident rate, but not so. The conditions conducive to accidents apparently are not chiefly of the less controllable type. On the other hand, as the temperature rises, so rates of accident and fatality soar, the annual peak being reached during the hot summer months. Obviously among the factors responsible are the number of automobiles on the road and the number of pedestrians. Then, too, the warmer weather, the good roads and the attendant quest for pleasure incite speed and a too liberal amount of recklessness, with all the dangers that go therewith; pedestrians are prone to saunter idly, and children, who contribute so many of the deaths, playfully throng or run out on the street, care-free, and little anticipating danger. These are circumstances which can be largely controlled.

There still remains the need for a great amount of effort and education to reduce these needless fatalities. The question of safety principles must be kept forever before drivers of vehicles, pedestrians, and particularly before children. Pedestrians as well as drivers must obey traffic regulations; drivers must realize that observance of regulations is not the only thing that matters, but that safe, sane handling of the individual car will often avoid the unforeseen circumstance; children who suffer most heavily, and many of whom have not yet reached the age of discretion, must remain the concern of drivers and pedestrians alike. The competency of drivers to handle a car must always continue a matter of thought on the part of the authorities; reckless driving must be severely punished, and even injudicious driving must be made the object of correction. The teaching of safety methods by the press, pulpit, and particularly the home and school, the full appreciation of the danger on the part of every individual, are the most effective means of reducing what otherwise will continue to be a menace of increasing magnitude.

